## **WEST Search History**

DATE: Monday, July 08, 2002

Set Name Query side by side			Hit Count Set Name result set			
DB=USPT; PLUR=YES; OP=AND						
L41	L40 and 14	53	L41			
L40	((514/255.06)!.CCLS.)	170	L40			
L39	L37 and phenamil	12	L39			
L38	L37 and phenazil	0	L38			
L37	3313813	49	L37			
L36	((514/851)!.CCLS.)	74	L36			
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=AND						
L35	514/851	81	L35			
L34	L33 and L4	. 14	L34			
L33	L2.clm. and (amiloride or benzamil or phenamil).clm.	14	L33			
L32	L2 and (amiloride or benzamil or phenamil)	184	L32			
L31	L30 and L29	16	L31			
L30	osmolyte	179	L30			
L29	potassium adj sulfate	7373	L29			
L28	L27	5144	L28			
$DB=U_{s}$	SPT; PLUR=YES; OP=AND					
L27	potassium adj sulfate	5144	L27			
L26	osmolyte	125	L26			
L25	L24 and L23 and L22	1	L25			
L24	L21 and potassium	3	L24			
L23	L21 and (amiloride or benzamil or phenamil)	1	L23			
L22	L21 and L2	2	L22			
L21	5569450.pn. or 5607691.pn. or 5725841.pn. or 5880098.pn. or 5817028.pn. or 5182299.pn.	6	L21			
L20	L18 and potassium adj sulfate	5	L20			
L19	L18 and L5	43	L19			
L18	(((424/45  424/46 )!.CCLS.))	1344	L18			
L17	L16 and potassium adj sulfate.clm.	2	L17			
L16	L15 and aerosol.clm.	13	L16			
L15	L4 and potassium adj sulfate	230	L15			
L14	L2 and potassium adj sulfate	32	L14			
DB = USPT, PGPB, JPAB, EPAB, DWPI; PLUR = YES; OP = AND						
L13	L12 and potassium adj sulfate	12	L13			
L12	L4 and L2	1405	L12			

• / •	DB = U	SPT; PLUR=YES; OP=AND			
	L11	L6 and potassium adj sulfate	15	L11	
	DB=JPAB,EPAB,DWPI; PLUR=YES; OP=AND				
	L10	L6 and potassium adj sulfate	0	L10	
	L9	L6	7	L9	
	L8	L7	0	L8	
	DB=U	JSPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=AND			
	L7	L6 and osmotical\$	101	L7	
	L6	L5 and L4	2069	L6	
	L5	osmot\$	23856	L5	
	L4	aerosol	73761	L4	
	L3	L2 and L1	46	L3	
	L2	cystic adj fibrosis	6433	L2	
	L1	sodium adj channel adj blocker	245	L1	

END OF SEARCH HISTORY

L7 ANSWER 13 OF 44 MEDLINE on STN ACCESSION NUMBER: 2000257879 MEDLINE

DOCUMENT NUMBER: 20257879 PubMed ID: 10796798

TITLE: Nebulised hypertonic saline for cystic

fibrosis.

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AB BACKGROUND: The lung disease in cystic fibrosis is characterised by impaired mucociliary clearance, recurrent bronchial infection and airway inflammation. Hypertonic saline has been shown to enhance mucociliary clearance in-vitro and this may act to lessen the destructive inflammatory process in the airways. OBJECTIVES: To determine if nebulised hypertonic saline treatment improved lung function, exercise tolerance, quality of life and decreased the incidence of exacerbations of respiratory infections in patients with cystic fibrosis. SEARCH STRATEGY: Studies were identified from the Cochrane Cystic Fibrosis and Genetic Disorders Group trials register. Titles and abstracts were reviewed to identify all controlled trials. Review articles and bibliographies identified from this process were surveyed for additional citations & RCTs. Identification of unpublished work was obtained from abstract books from the three major Cystic Fibrosis conferences (International Cystic Fibrosis Conference, The European Cystic Fibrosis Conference and the North American Cystic Fibrosis Conference). Trial authors were contacted for additional information when only abstracts were available to review. Date of the most recent search of the Group's specialised register: November 1999. SELECTION CRITERIA: All controlled trials that assessed the effect of hypertonic saline compared to placebo or other mucolytic therapy, for any duration or dose regimen in subjects with cystic fibrosis of any age or severity were reviewed. Studies in languages other than English were included. DATA COLLECTION AND ANALYSIS: All identified trials were independently reviewed by both reviewers & all data collected. Trial quality was scored by the Cochrane assessment of allocation concealment & the Jadad scale of methodological quality. MAIN RESULTS: Twelve controlled trials of hypertonic saline were identified. Seven trials met the inclusion criteria; these involved 143 subjects with an age range of 6 to 46 years. Of these, six were published studies and one in abstract form. The durations of the trials were limited to immediate effects on mucociliary clearance to a maximum of three weeks. In two studies, involving thirty five subjects, a score for the feeling of cleared chest was made using visual analogue scales. This analysis showed a weighted mean difference of -0.98 (95% confidence Interval -1.6, -0.34), favouring hypertonic saline over isotonic saline. In two trials with 22 subjects hypertonic saline improved mucociliary clearance as measured by isotope clearance from the lungs in 90 minutes demonstrating a weighted mean difference of -11.3 (95% confidence Interval -18.6, -4.0),

and as area under the clearance time curve; weighted mean difference of -212 (95%CI -272, -152), also favouring hypertonic saline over isotonic saline. Lung function as measured by improvement in FEV1 was observed in one study of 27 subjects. The percentage increase in FEV1 at two weeks increased by a mean 15.0% with hypertonic saline and 2.8% with isotonic saline (p=0.004). Adverse events were adequately described in only one trial and none were serious. REVIEWER'S CONCLUSIONS: Nebulised hypertonic saline improves mucociliary clearance immediately after administration which may have a longer term beneficial effect in cystic fibrosis. The maximum time data were recorded for was only three weeks. Most of the patients had mild to moderate lung disease and the effect on severe lung disease remains unclear. Further studies of hypertonic saline should be carried out to determine the effect on pulmonary function tests, quality of life, frequency of exacerbations of respiratory disease and efficacy comparisons with nebulised deoxyribonuclease, with larger numbers and for longer duration. At this stage there is insufficient evidence to support the use of hypertonic saline in routine treatment for patients with cystic fibrosis.